

FILED '11 MAY 16 09:37 USDC-ORE

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
EUGENE DIVISION

LEAGUE OF WILDERNESS DEFENDERS,)
BLUE MOUNTAINS BIODIVERSITY)
PROJECT, an Oregon non-profit)
corporation,)
Plaintiff,)
v.) Civil. No. 10-6302-HO
ORDER
UNITED STATES FOREST SERVICE;)
JOHN ALLEN, in his official)
capacity as Forest Supervisor,)
Deschutes National Forest; and)
BOV EAV, in his official)
capacity as Director of the)
Pacific Northwest Research)
Station,)
Defendants.)

Plaintiff, League of Wilderness Defenders-Blue Mountains
Biodiversity Project, brings this action seeking declaratory and

injunctive relief with respect to the Forest Service's decision to approve the EXF Thinning, Fuels Reduction, and Research Project located in the conifer forests of the eastern Cascades within the Lookout Mountain Unit of the Pringle Falls Experimental Forest of the Deschutes National Forest. Specifically, plaintiff asks the court to:

A. Declare that Defendants violated the National Environmental Policy Act (NEPA) and its implementing regulations, in their preparation of the EXF FEIS by:

1) failing to fully consider a reasonable range of alternatives;

2) failing to ensure scientific accuracy and integrity with regard to actual tree mortality; and

3) failing to take a "hard look" at the impacts of the EXF Project by: (i) failing to divulge and analyze the fact that the No Action alternative would result in lower tree mortality levels than the Proposed Action; and (ii) failing to analyze the adverse impacts and cumulative effects of the severe stand density reduction proposed by this logging project on future snag levels in the project area and the effect this would have on snag-dependent wildlife, including the population viability of snag-dependent management indicator species in this already snag-deficient landscape.

B. Declare that Defendants' actions ... are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, and without observance of procedure required by law, contrary to the Administrative Procedures Act.

C. Enjoin the implementation of any activities associated with the EXF Project until and unless Defendants have prepared a new EIS that fully complies with NEPA.

D. Award Plaintiffs their reasonable fees, cost, and expenses associated with this litigation pursuant to the Equal Access to Justice Act, 28 U.S.C. 2412 or other authority; and

E. Grant Plaintiffs such additional and further relief as the Court deems just and equitable.

Complaint (#1) at pp. 16-17.

This case involves proposed activities in the Pringle Falls Experimental Forest which was established as a silviculture, forest management, and insect and disease research area regarding ponderosa pine forests east of the Cascades. It is located within the Deschutes National Forest approximately 25 miles southwest of Bend, Oregon. The affected area involves approximately 2,554 treatment acres, 266 of which are subject to the Eastside Screens.¹

According to the Final Environmental Impact Statement (FEIS):

Within the Lookout Mountain Unit is relatively large block of closed-canopy forest that has undergone only minor disturbance since about 1845 when single stand-replacement fire resulted in the establishment of dense ponderosa pine at lower elevations and Douglas-fir grand fir sugar pine western white pine and mountain hemlock at higher elevations. The 165-year old cohort of ponderosa pine has grown exceptionally well and it is known that within this portion of the western distribution of ponderosa pine individual trees could

¹Within those 266 acres, there are 22 acres of late successional old growth. AR at 18771. After the proposed treatment, 15 acres will remain late successional old growth.

survive for 600 years... However, the trees here have declined in radial growth over the past decade and have structural characteristics that indicate they are at imminent risk of catastrophic loss to bark beetles and high risk of loss to wildfire.

There have been management activities within the experimental forest, including vegetation management, since the road system was built in the 1960s. Forest records show that much of the Lookout Mountain unit was thinned in the 1970s and 80s. In the last century, one large wildfire has occurred within the unit: the 1914 Lookout Mountain Eastside Fire covered 323 acres. Fire exclusion has contributed to high stand density and allowed elevated fuel accumulation. Management activities, research activities, wildfires, and fire suppression have resulted in the current condition of the Lookout Mountain Unit...

The forest is at risk of major disturbance from multiple threats, including wildfire and insects. Because of stand density, average diameter, and availability of host species and fuels, there is high and increasing probability that ponderosa pine across the Lookout Mountain unit will support landscape-scale western pine or mountain pine beetle outbreak, or large stand-replacing event. This important site could be lost if stand densities are not reduced. Such disturbance would mean the loss of existing high-value, long-term studies and eliminate most future research opportunities.

Administrative Record (AR) at 18678.

Accordingly, the Forest Service proposes to conduct timber harvesting thinning treatments and prescribed burning across 2,554 acres and mechanical shrub treatments across 70-90 percent of the thinned units. AR at 196668-71. In addition, the Service proposes to install about one mile of temporary roads and conduct maintenance over 35 miles of existing roads. Id. The tree

thinning operations will bring stands to between 50 and 75 percent of the upper management zone (UMZ).² Id. The project will result in logging of approximately 70 percent of trees over 6 inches diameter at breast height (dbh) across the 2,544 affected acres. However, the largest trees in any given area will be retained, AR at 18713, and there will be an average of just shy of 19 trees per acre larger than 21"dbh following the proposed treatment. AR at 18768.³

The Forest Service's purpose is

to reduce risk to the site by reducing stand densities, and lowering susceptibility to catastrophic loss to insects, disease, and fire. By integrating the need to reduce risk to the site with the research goals of the PNW Research Station, treatments would be implemented in such a way that pertinent research questions regarding long-term sustainability of ponderosa pine and mixed conifer forests in a changing climate can be answered.

....

There is need to provide operational scale research opportunities through a series of thinning and fuel

²The UMZ is the density threshold at which the Service determined that a stand is generally at substantially greater risk of large-scale loss due to insect infestation. AR 19668-69. The Service also intends to thin some units to 100 percent of UMZ and leave others untreated as control units for purposes of the research component of the stated goals. AR at 19668-69. Because of this, the Forest Service will necessarily develop data about forest management that includes no thinning and less aggressive thinning alternatives to insect, disease, and fire risks.

³Currently there are approximately 27 trees per acre larger than 21"dbh.

reduction treatments applied across the landscape. This need comes generally from the establishment record for the Experimental Forest, and specifically from the study plan. The project will provide a platform for research addressed in the Pacific Northwest Research Stations study plan titled "Vegetation Dynamics after Thinning and Fuels Reduction in Dry Forests." The project is designed to address the following specific research questions:

1. What set of fuel reduction treatments best accelerates the development of large trees while over the long-term reintroduces natural disturbance processes that provide greater ecosystem resiliency?
2. What is the long-term influence of climate change interacting with set of fuel reduction treatments on vegetation dynamics and forest structure?
3. Can single cohort stands be readily converted to multi-cohort stands?
4. Do multi-cohort stands share the same risks of multiple interacting stresses as single-cohort stands?
5. How does the dominant shrub, giant chinquapin, respond in the near-term to set of fuel reduction treatments?
6. How does the residual stand structure resulting from set of fuel reduction treatments interact locally and in the near-term with wind to cause additional structural changes?

AR at 18679-80.

Projects involving experimental forests rarely reach scrutiny at the court level. The Forest and Rangeland Renewable Resource Research Act 16 U.S.C. §§ 1641-49, provides the Secretary of

Agricultural with broad authority (and broad authority delegated from the Secretary to the Chief of the Forest Service), to carry out research activities with respect to forests. When such research activities on thinning and management techniques collide with a need to reduce risk to widespread tree mortality, it would be short sighted for the courts to intervene and dictate that the Forest Service consider alternatives that hamper or eliminate research objectives to reduce or obviate actions that may, in the short-term, result in tree mortality resulting from the thinning operations themselves. The Pringle Falls Experimental forest is, by design, intended to facilitate management, insect, and disease research in ponderosa pine forests east of the Cascades. While the requirements of NEPA still apply, the necessary range of alternatives and hard look are strongly informed by the research objectives of the Forest itself. The Forest Service simply cannot entertain every alternative without regard for elements that are unique to the research forest that accounts for protecting against a major disturbance event that would destroy the ability to carry out on-going long-term research in the area, or preclude important future research opportunities. It is with this backdrop in mind that the court considers plaintiff's objections to the project.

Plaintiff alleges the project should be enjoined on three grounds: (1) a failure to analyze a reasonable range of

alternatives; (2) a failure to ensure scientific accuracy and integrity; and (3) a failure to take a hard look at the impacts.

A. Range Of Alternatives

The Forest Service, in crafting the EIS, must include alternatives to the proposed action. 42 U.S.C. § 4332(C)(iii). The Service must "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." In other words, the Service must "[r]igorously explore and objectively evaluate all reasonable alternatives" so that the it can "sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. § 1502.14.

Project alternatives derive from an Environmental Impact Statement's "Purpose and Need" section, which briefly defines "the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." 40 C.F.R. § 1502.13. The stated goal of a project necessarily dictates the range of "reasonable" alternatives and an agency cannot define its objectives in unreasonably narrow terms.

City of Carmel-By-The-Sea v. U.S. Dept. of Transp., 123 F.3d 1142, 1155 (9th Cir. 1997).

Plaintiff contends that the purpose and need statement for the project is unreasonably narrow such that only the proposed action,

or a similar alternative, could satisfy the project's purpose. Therefore, plaintiff argues, the Forest Service failed to consider plaintiff's proposed alternatives that either would retain the Deschutes National Forest Land and Resource Management Plan (LRMP) old growth protection standard that prohibits logging of all trees =>21"dbh or would limit thinning operations to trees under 12"dbh. Plaintiff contends such alternatives are reasonable because they curtail tree mortality. Plaintiff, in essence, would have the court ignore the research aspect of the proposed plan under the guise of presuming that the research aspect is merely contrived to force the adoption of the proposed plan to the exclusion of other alternatives.

The Service thoroughly considered only two action alternatives that were similar in addition to the no action alternative and rejected detailed consideration of plaintiff's proposed actions noted above. However, the research aspect of the project necessarily narrowed consideration of alternatives. The purpose of and need of the proposed project clearly articulated both aspects of the project to reduce risk of catastrophic loss due to fire, insects, or disease, and to study long-term forest vegetation dynamics following various thinning operations. Though the experimental component of the purpose and needs of the operation did narrow the reasonable range of alternatives, the purpose and

needs are appropriate given that the project takes place in an experimental forest and the broad discretion the Service has within such a forest. See e.g., 16 U.S.C. § 1642(a) (authorization to conduct investigations, experiments, tests, and other activities deemed necessary to obtain, analyze, develop, demonstrate, and disseminate scientific information about protecting, managing, and utilizing forest and rangeland renewable resources in rural, suburban, and urban areas) (emphasis added). The very purpose of the Pringle Falls Experimental Forest is to conduct such research, and plaintiff's argument that the stated purpose is too narrow, ironically, would substitute a purpose so narrow as to eliminate the research objectives of the forest itself. By eliminating the research objective, more alternatives may fit within the purpose of reduction due catastrophic loss via fire, but the need for research would remain unaddressed (as may the need to eliminate catastrophic loss due to infestation). Providing for both objectives is not unreasonable under the circumstances. See City of Carmel-By-The-Sea, 123 F.3d at 1155-57 (multi-goal project factors that derived from the purpose and need of the DEIS, that tip in favor of the proposed project is not unreasonable).

Moreover, the purpose and needs articulated are not unreasonably narrow due to the lack of adherence to the Eastside

Screens.⁴ One of the Project's purposes is to protect the oldest and largest trees. The proposed plan calls for thinning from below, i.e., retain the largest trees in any given area. As noted above, late successional old growth disturbance is minimal and the Eastside Screens only apply to a small area within the project. The treatments arguably reduce the risk to large trees within the entire project as well as the area within the Eastside Screens. In addition, the statutorily mandated research objectives override any agency developed specific forest plan. The Service considered and determined that a limit to <21"dbh would not allow achievement of the aim to reach target stand densities to reach research objectives and, thus, eliminated it from detailed study. AR 18713. See AR at 18769 (To change the number of large trees retained by leaving all or more of the larger trees than is proposed in the study plan would provide biased results and would prevent adequate study block replication resulting in compromised scientific validity). The Service also concluded that retention of all trees 21"dbh and over would result in thinning above UMZ (AR at 18924), which prevents the project objective of reducing imminent risk of large-scale loss due to bark and mountain pine beetle. AR 18762.

⁴Plaintiff is not raising a challenge regarding prohibition on timber harvests in management areas nor any claims under the National Forest Management Act.

Plaintiff also contends that even the no action alternative would provide greater achievement of large trees in the project area simply because the service proposes to actually eliminate large trees. Plaintiff's argument ignores the first project purpose of limiting risk of catastrophic loss due to the project area being well-above UMZ. As noted above, even thinning operations that leave trees greater than 21"dbh would still leave areas above UMZ and thus at greater risk to infestation. Accordingly, plaintiff's proposed alternative to limit thinning operations to <12"dbh also fails to meet a subset of the first objective of the project, as well as the research objective.

The Forest Service is required to take a hard look at relevant factors, which include the regulatory framework. In this case, the framework includes the Research Act, which necessarily narrowed the range of alternatives for the project and the Forest Service was not unreasonable in its evaluation of alternatives. While the Forest Service did reject plaintiff's proposed alternatives that would have further limited large tree thinning, it did consider them and found them to be inconsistent with the reasonable purpose and needs of the project. The Service is under no obligation to consider every possible alternative to a proposed action, nor must it consider alternatives that are unlikely to be implemented or

those inconsistent with its basic policy objectives. See Resources Limited, Inc. v. Robertson, 8 F.3d 1394, 1401-02 (9th Cir. 1993).

B. Scientific Accuracy and Integrity

In crafting the EIS, the Forest Service must "insure the professional integrity, including scientific integrity, of the discussions and analyses." 40 C.F.R. § 1502.24. To this end, the Forest Service submitted the study plan to peer review (including a double blind review) with seven external reviewers.⁵ AR at 12850. Nonetheless, plaintiff contends that the Service failed in this regard because: (1) the scientific studies relied upon do not support the assertion of imminent risk of catastrophic mortality; (2) on-ground conditions and data modeling do not demonstrate risk of catastrophic loss if the proposed action is not implemented; and (3) greater mortality will occur than if no action is taken.

In reviewing the scientific integrity of the Service's action under the APA, the court's role is to ensure that the Forest Service made no clear error of judgment that would render its action arbitrary and capricious. The Lands Council v. McNair, 537 F.3d 981, 993 (9th Cir. 2008).

⁵It should be noted that the Environmental Protection Agency has responsibility to conduct a review of the DEIS pursuant to NEPA, and after such review indicated no objections and supported the project. AR at 19139

To do so, [courts] look to the evidence the Forest Service has provided to support its conclusions, along with other materials in the record, to ensure that the Service has not, for instance, "relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or [an explanation that] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."

Id. (quoting Motor Vehicle Mfrs. Assn., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983)). The court must defer to the Service's determination in an area involving a high level of technical expertise, and must be most deferential when the Service is making predictions, within its area of special expertise, at the frontiers of science. Id. Courts are not free to impose others' notions of which procedures are best or most likely to further the public good. Id.

1. Imminent Risk

Plaintiff argues that the studies fail to support the assertion that when forest density exceeds UMZ, there is an imminent risk of catastrophic loss due to beetle infestations. However, the record demonstrates that thinning is "a practical means of lowering the probability of serious mortality from mountain pine beetle ... and perhaps western pine beetle." AR at 5483-84. The Forest Service defined "imminently susceptible" when

"condition is such that it is very likely to experience significant change in structure or character as result of insect attack and/or fire in the near future,"⁶ AR at 6305, and went on to identify the procedures for identifying when a stand is imminently susceptible to insect attack or wildfire. AR at 6305-6310. The Service found that:

The following conditions characterize stands that under the proposed definition are imminently susceptible to bark beetle attack. These descriptions were developed by Pat Cochran Research Scientist PNW from pertinent published literature and his research over the past decades correlating stocking level densities stand growth and development and bark beetle attack in the forests of Central Oregon. Cochran identifies an upper management zone of stocking for major plant associations that cover broad range in site productivity. The upper management zone for a given plant association represents the point at which tree mortality begins to occur due to competition for site resources. Cochran's recommended stand density cutoff points are based on the assumption of average weather conditions. If the next decade or so has more moisture than average then stands can carry higher densities before experiencing this reduction in stocking. If conditions are drier than average, less stocking density can be maintained. Since future weather patterns cannot be predicted with any degree of accuracy, we are assuming the average condition will prevail.

Ponderosa pine stands--If stands are stocked above the upper management zone as per Cochran's stocking curves PNW-RN-513 they are at imminent susceptibility. For sites above Barrett's Site Index 110, the upper management

⁶Plaintiff's repeated cite to studies of 5-14% mortality in the subject area in areas above UMZ (resulting from bark beetle only) does not serve to demonstrate any improprieties on the part of the Forest Service with respect to this definition.

zone would be at 75% of normal Stand Density Index. For sites lower than Barrett's Site Index 110 the upper management zone is determined by the formula $UMZ = 365(-0.36 + 0.01\{s\})$ where S is Barrett's site index value. The greater the stocking above this upper management zone threshold the greater the susceptibility to density dependent agents of change such as bark beetles. Existence of dwarf mistletoe in the stand, or presence of recent bark beetle attacks also increases the Likelihood of future change within the stand. In such cases, even stands below the upper management zone may be imminently susceptible due to combination of density mistletoe and the resident bark beetle population.

AR at 6306-07.

A review of the average mortality rate tables reasonably supports the conclusion that higher tree mortality rates due to beetle infestations occur in higher rather than lower densities even after treatments. AR 5926. In addition, the record shows that thinning when the stand density index (SDI) exceeds 240 will produce large diameter trees relatively soon and lower the risk of beetle outbreaks, AR 7084, and declining mortality rates due to thinning. AR at 7092. Studies showed that

mortality seems to be related to density and period. Overall mortality rates were greatest in the first period when crown ratios were low ... In later periods, as the trees adjusted to the available growing space and became more vigorous, mortality rates of two or more trees per acre for 5-year period were confined to densities of SDI 240 or greater at the start of the period.

AR at 7105.

The Forest Service also cited a stand which reached an SDI of 329 and then suffered a catastrophic loss, AR at 5907, that stands that approach an SDI of 365 usually suffer large losses and beetle kills can begin when SDI reaches 230. AR at 5908. Other studies show that tree densities are consistently associated with severe bark beetle infestations. AR 11823. Finally, the Service relied on data it collected within the project area. AR at 17624-26.. The Service notes densities in excess of UMZ in the project area and thus appropriately supports its conclusions.

2. On-Ground Conditions and Data Modeling

Plaintiff contends that the Forest Service's own modeling (Forest Vegetation Simulator (FVS)) and on-ground conditions contradicts a finding of imminent risk of catastrophic loss due to bark beetles. In essence, plaintiff contends that because stand density is currently above UMZ, there must be no risk. As noted above, the record reasonably demonstrates a finding that while UMZ is reachable, it is not sustainable.

Plaintiff also contends that the FVS shows stands currently above UMZ will continue to grow. However, the FVS was used only to generate pre-treatment and post-treatment metrics of stand structure, such as density, average stand diameter, and to generate data streams to use as input into the Stand Visualization System to

create visual representation of pre- and post-treatment stand structure. AR at 17627, 18763, 18766-70, 18985-87. Bark beetle mortality was not modeled. Moreover, the model lacks the small tree and shrub data to estimate fire danger and the Service used FlamMap to evaluate potential fire behavior rather than FVS. AR at 18779, 22464.

C. Impacts

Plaintiff contends that the Forest Service failed to take a hard look at the impacts of the project on tree mortality and snag dependent wildlife.

Under NEPA, the Forest Service is required to provide a detailed statement of the environmental impact of significant actions. 42 U.S.C. § 4332©. NEPA "places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action." Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 553 (1978). NEPA also ensures that the Forest Service will inform the public that it has indeed considered environmental concerns in its decisionmaking process. Weinberger v. Catholic Action of Hawaii, 454 U.S. 139, 143 (1981). However, NEPA does not require the Forest Service to elevate environmental concerns over other appropriate considerations. See Stryckers' Bay Neighborhood Council v. Karlen, 444 U.S. 223, 227

(1980). Rather, it requires only that the Service take a "hard look" at the environmental consequences before taking a major action. See Kleppe v. Sierra Club, 427 U.S. 390, 410, n. 21 (1976). The role of the court here is to ensure that the Forest Service has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary or capricious. See generally Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 415-417 (1971).

Plaintiff primarily contends that tree mortality from the project exceeds mortality that may result from the risks associated with wild fire and insect infestation and that the Forest Service fails to provide an adequate discussion vis-a-vis the no action alternative. However, plaintiff confuses action taken to avoid a threat with action responding to an occurrence. Simply because a catastrophic fire or insect event has not occurred does not mean that the Forest Service violated its responsibilities regarding the impact.

The Service analyzed the number of trees proposed to be removed by the action alternatives, and under the no action alternative. AR at 18766-69. In addition, expected fire behavior is also clearly analyzed and disclosed for all alternatives. AR at 18786-18801. Stand density is used to measure potential for insect-related mortality for all alternatives in the FEIS as well.

AR at 18764-66. This is also measured through time. AR at 18769. Certainly, the project has a significant impact on trees in that it removes a large number of trees in the project area. But the FEIS adequately discuss the implications for no action given the scientific foundation for risk of loss if stands are left above UMZ. Simply because tree mortality can't be exactly quantified with respect to thinning operations and the tree mortality can only be estimated if stand densities grow unchecked, does not mean the agency failed to take a hard look at the issue. The number of trees to be removed is explicitly disclosed and the Forest Service adequately informed the public of the consequences of the project and the no action alternative.

Plaintiff next argues that the Forest Service failed to take a hard look at the direct and cumulative effects of the proposed action on snag densities and cavity-nesting wildlife, i.e., the substantial reduction in further recruitment of medium and large snags upon which cavity nesting management indicator species and sensitive species depend.

The Forest Service concluded that current snag density is meeting Forest Plan direction. AR at 18862. The Service discussed benefits to some species and degradation to others. See, e.g., AR at 18816 (benefit to Lewis' woodpecker and white-headed woodpecker); AR 18854-55 (degradation to lodgepole pine habitat).

The Forest Service determined to retain all existing snags except where a safety hazard so as not to impact current snag levels. AR at 18705. In addition, the Service used the DecAID tool to evaluate available data on species and their relationship to dead wood. See AR at 18805-69. The FEIS discusses the impacts and the Service concludes that there are enough trees to maintain snags at the required level. AR at 18869-70. The FEIS describes how the no action alternative would hasten the development of smaller diameter snags and then describes how alternative 2 would delay the creation of snags by improving forest health, which would lead to larger trees. The larger trees would eventually become snags. AR at 18867-18868. The Forest Service concludes that large snags are more desirable at this point than many small snags because the landscape is currently most lacking in the larger size structure. AR at 18868.

Analysis of the no action alternative indicated that "[h]igh tree density in some ponderosa pine stands would not only retard the development of large diameter (>21" dbh) ponderosa pine and future snags, but also may hasten the development of smaller snags...as a result of mortality from bark beetles or fire." AR at 18867.

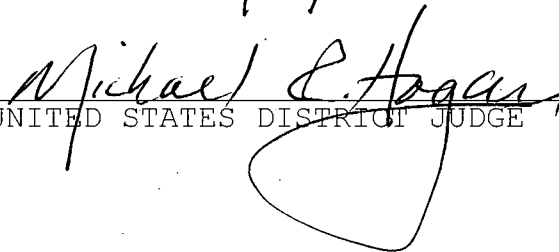
Plaintiff takes issue with the purported lack of particularized information about actual snag densities in the

future in light of the FVS model. But again, plaintiff argues a use of a model for which it was not designed. The FEIS does in fact analyze improving forest health, which would lead to larger trees. The larger trees would eventually become snags. AR at 18867-18868. The FEIS takes the requisite hard look at the impact on snags and snag habitat.

CONCLUSION

For the reasons stated above, plaintiff's motion for summary judgment (#20) is denied and defendant's motion for summary judgment (#25) is granted.

DATED this 12th day of May, 2011.


UNITED STATES DISTRICT JUDGE